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ISBN	3-662-47334-8
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Descrizione fisica	1 online resource (242 p.)
Disciplina	003.54 006.3 519 620 629.8 629.892
Soggetti	Computational intelligence Computer science - Mathematics Coding theory Information theory Automatic control Robotics Automation Computational Intelligence Mathematical Applications in Computer Science Coding and Information Theory Control, Robotics, Automation Control and Systems Theory
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Time-Varying Reciprocal -- Time-Varying Inverse Square Root -- Time-Varying Square Root -- System of Time-Varying Linear Equations -- Over-Determined and Under-Determined Systems of Time-Varying Linear Equations -- Time-Varying Linear Matrix-Vector Inequality -- Time-VaryingMatrix Inverse -- Time-VaryingMatrix Left Pseudoinverse

	-- Time-VaryingMatrix Right Pseudoinverse -- Time-VaryingMatrix Square Root -- Time-Varying Complex Reciprocal -- Time-Varying Complex Matrix Inverse -- Time-Varying Complex Matrix Generalized Inverse -- Application to Fixed-Base Robot RMP -- Application to Mobile Robot RMP.
Sommario/riassunto	This book focuses on solving different types of time-varying problems. It presents various Zhang dynamics (ZD) models by defining various Zhang functions (ZFs) in real and complex domains. It then provides theoretical analyses of such ZD models and illustrates their results. It also uses simulations to substantiate their efficacy and show the feasibility of the presented ZD approach (i.e., different ZFs leading to different ZD models), which is further applied to the repetitive motion planning (RMP) of redundant robots, showing its application potential.